MAI-2006-8

UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

REPORT OF INVESTIGATION

Underground Nonmetal Mine
(Limestone)

Fatal Powered Haulage Accident
April 22, 2006

Anderson Mine
Franklin Industrial Minerals Company
Sherwood, Franklin County, Tennessee
Mine I.D. No. 40-00022

Investigators

Harry M. Wade
Mine Safety and Health Inspector

Donald R. Baker
Mine Safety and Health Inspector

Originating Office
Mine Safety and Health Administration
Southeastern District
135 Gemini Circle, Suite 212 Birmingham, AL 35209
Michael A. Davis, District Manager

OVERVIEW

James W. Miller, utility operator, age 53, was fatally injured on April 22, 2006, when he was struck by a front-end loader. The victim was gathering wash down hoses to start washing material out from under the railroad scales. He tripped over the hoses and fell in front of the front-end loader that was traveling through the area.

The accident occurred because the wash out area was not being kept clean and orderly. The wash down hoses were lying on the ground and twisted together, creating a trip hazard. Management failed to require that hoses were removed from the travelways after they had been used. Hose reels, hooks or storage areas had not been provided to eliminate tripping hazards.

GENERAL INFORMATION

The Anderson Mine, an underground crushed limestone operation, owned and operated by Franklin Industrial Minerals Company, was located about six miles south of Sherwood, Franklin County, Tennessee. The principal operating official was Randy Downing, plant manager. The mine operated two, ten-hour shifts per day, five and a half days a week. Total employment was 48 persons.

The operation consisted of an underground mine with a surface mill. The mine was opened to the surface by adits that were used for main haulage roads. Rooms and pillars in the mine were developed by conventional drilling and blasting. Broken limestone was loaded into trucks by front-end loaders and transported to the surface where it was crushed, sized, and stored in silos. Finished products were sold for manufacturing use.

The last regular inspection of this operation was completed on February 22, 2006.

DESCRIPTION OF THE ACCIDENT

On the day of the accident, James W. Miller, (victim) and Jon Hannah, front-end loader operator/lead man, reported for work at 5:00 a.m., their normal starting time. They went to the railroad load out area and started moving railcars to the south end to be loaded. Hannah started cleaning off the railroad scales with the front-end loader so all four cells of the scales could be calibrated.

Miller went to the top of the wash down building, where the discharge end of the wash down hose had been left. He threw the hose end off the building and returned to the ground level to wash under the scales. Hannah finished cleaning and calibrating the scales. Hannah last saw Miller near the wash down building, as he drove the front-end loader off the scales. Miller walked around the wash down building to gather the hoses. He tripped and fell across the railroad track in front of the moving front-end loader. Hannah was traveling north on the railroad tracks at an idle speed. As Hannah looked down to ensure he did not hit a rail switch, he saw the victim under the front tire.

Hannah summoned help and mine personnel administered Cardiopulmonary Resuscitation unsuccessfully. Emergency medical personnel arrived and transported the victim to a local hospital where he was pronounced dead. The cause of death was attributed to crushing injuries.

INVESTIGATION OF THE ACCIDENT

MSHA was notified of the accident at 6:55 a.m. on April 22, 2006, by a telephone call from Rick Williams, director of safety, to Donald Craig, supervisory mine safety and health inspector. An investigation was started the same day. An order was issued under the provisions of Section 103(k) of the Mine Act to ensure the safety of miners. MSHA's accident investigation team traveled to the mine, conducted a physical inspection of the accident scene, interviewed employees and emergency medical personnel, and reviewed documents, conditions and work procedures relevant to the accident. MSHA conducted the investigation with the assistance of mine management, employees, and the miner's representative.

DISCUSSION

Location of Accident

The accident occurred at the railroad load out area, approximately forty feet north of the railroad scales, on the tracks, near the wash down building.

Equipment

The front-end loader involved in the accident was a Caterpillar model 966-D. It was inspected and no defects were found.

Wash down area

The wash down hoses were found on the ground beside the railroad tracks. One hose was about 80 feet long and 2 inches in diameter and the other hose was about 50 feet long and a half inch in diameter. Both hoses were twisted and doubled back over each other creating a tripping hazard. A heavy rain fell just before the accident.

Training

James W. Miller had 7 years, 11 weeks mining experience, all at this mine. He had received training in accordance with 30 CFR, Part 48.

ROOT CAUSE ANALYSIS

A root cause analysis was conducted and the following root cause was identified:

Root Cause: Management policies and controls were inadequate. Procedures were not in place requiring hoses to be removed and stored when not in use. Management failed to identify the tripping hazard that was created when hoses were lying in travelways and work areas. Procedures that prohibited miners from performing tasks in areas where mobile equipment was being operated were not established.

Corrective Action: A risk assessment should be conducted for each assigned task to identify and correct all possible hazards and establish safe work procedures.

CONCLUSION

The accident occurred because the wash out area was not being kept clean and orderly. The wash down hoses were lying on the ground and twisted together, creating a trip hazard. Management did not conduct a risk assessment to identify all possible hazards and establish safe work procedures for the assigned task.

ENFORCEMENT ACTIONS

Order No. 6087646 was issued on April 22, 2006, under the provisions of section 103(k) of the Mine Act:

A fatal accident occurred at this operation on April 22, 2006, when a miner was run over by a front-end loader. This order is issued to assure the safety of all persons at this operation. It prohibits all activity at the rail car cleaning station and rail scales until MSHA has determined that it is safe to resume normal mining operations in the area. The mine operator shall obtain prior approval from an authorized representative for all actions to recover and/or restore operations to the affected area.

This order was terminated on April 22, 2006, after conditions that contributed to the accident no longer existed.

Citation No. 6087647 was issued on April 22, 2006, under the provisions of section 104(a) of the Mine Act for a violation of 30 CFR 57.20003(a):

A fatal accident occurred at this operation on April 22, 2006, when an employee was struck by a front-end loader at the railcar wash out area. The victim tripped over a wash down hose and fell into the path of the front-end loader. The hoses had been laying in the walkway adjacent to the railroad tracks in preparation to clean out under the scales.

This citation was terminated on June 7, 2006. The operator has installed piping with drops at each wash down site and installed hose reels, removing the hazard of hoses being left on the ground.

Approved by: _____ Date: _____

Michael A. Davis
District Manager

APPENDIX A

Persons Participating in the Investigation

Franklin Industrial Materials

Randy Downing	plant manager
Jim Moot	plant superintendent
Jim Ruddell	corporate director of safety
Rick Williams	director of safety
George Guess	maintenance foreman/ miners representative
Terry Pack	miner's representative

Emergency Medical Services

Melissa Hoosier	paramedic for Grundy EMS Inc.
Adam Hoosier	paramedic for Grundy EMS Inc.

Mine Safety and Health Administration

Harry M. Wade	mine safety and health inspector
Donald Baker	mine safety and health inspector